

Remarks

Claims 1-21 are currently pending in this application, with claims 1-2, 12 and 16 being the independent claims. Claims 1 and 2 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claim 1 stands objected to for an informality. The drawings have been objected to under 37 C.F.R. § 1.83. The Examiner has indicated that claims 1-2 are allowable over the prior art.

I. Formal Drawings Have Been Provided, However, No Correction to the Drawings is Required

The drawings have been objected to under 37 C.F.R. § 1.83 as failing to show each of the claimed features. Particularly, the Examiner states that the claimed “to calculate a frequency error produced by said mixer” and “to calculate a frequency error produced by said upconverter” as recited in claims 1 and 2, respectively should be shown in the drawing figures. Applicants believe that the drawings as filed show a system configured to perform these functions. Therefore, the objection should be withdrawn.

With respect to the claimed “computer adapted to ... calculate a frequency error produced by said mixer”, as recited in claim 1, Applicants respectfully submit that this computer is shown for example, in FIG. 2A, 1400. As described in the present specification, the computer 1400 may be configured to “calculate a frequency error produced by said mixer”; the mixer being shown in FIG. 2A as items 2200 and 3200. Therefore, Applicants respectfully submit that all features recited in claim 1 are shown in the figures as originally filed in connection with the present application.

With respect to the claimed “computer adapted to ... to calculate a frequency error produced by said upconverter”, as recited in claim 2, Applicants respectfully submit that this computer is shown for example, in FIG. 3A as item 1400. As described in the present specification, the computer 1400 may be configured to “calculate a frequency error produced by said upconverter”; the upconverter being shown in FIG. 3A as item 7000. Therefore, Applicants respectfully submit that all features recited in claim 2 are shown in the figures as originally filed in connection with the present application.

Thus, Applicants respectfully request that the Examiner withdraw the objection of the drawings under 37 C.F.R. § 1.83(a) as all of the requirements of that rule have been satisfied.

II. The Objection to Claim 1 has been Overcome

Claim 1 stands objected to as having an informality. Applicants thank the Examiner for proposing claim language to clarify the claim. Applicants have amended the claim accordingly. Therefore, Applicants respectfully request that the Examiner withdraw the objection to claim 1.

III. The Claims are Definite

Claims 1 and 2 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. These rejections are respectfully traversed.

In the Office Action, the Examiner stated that “there is in [sic] no connection between the composed elements...”. However, Applicants respectfully disagree.

First, Applicants respectfully submit that physical connection of components is not required under § 112, second paragraph so long as one of ordinary skill in the art would understand that which was being claimed. As per MPEP § 2173.02, “once the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire.” See MPEP § 2173.02 (Eighth ed. Rev. 2004) (emphasis in original).

Here, Applicants respectfully submit that the elements of the claim are related by the language of the claim itself. For example, claim 1 states that the analog-to-digital converter and the digital receiver are driven by the second oscillator and that the computer is configured to receive a frequency measurement from the second oscillator. Applicants respectfully submit that the components recited in claim 1 are claimed in such a manner to permit one of ordinary skill in the art can understand what it is that is being claimed. Additionally, as recited in claim 2, the

claimed digital-to-analog converter and the claimed digital modulator are driven by the first oscillator and the upconverter is driven by the second oscillators. The computer is configured to receive a frequency measurement of the first and second oscillators. Therefore, Applicants respectfully submit that the elements as recited in claim 2 are claimed in such a way to permit one of ordinary skill in the art to which the invention pertains to understand what is being claimed.

Based on the foregoing, Applicants respectfully submit that claims 1 and 2 are in condition for allowance. Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. § 112, second paragraph.

IV. New Claims 3-11 are Allowable

Applicants have added new claims 3-11, each of which depend either from claim 1 or claim 2. Because claims 1 and 2 are in condition for allowance, dependent claims 3-11 are also in condition for allowance. Therefore, Applicants respectfully request that the Examiner indicate claims 3-11 as allowable.

V. New Claims 12-21 are Allowable

Claims 12-21 are newly presented, with claims 12 and 16 being new independent claims. New independent claims 12 and 16 each recite a system for digitally compensating radio frequencies including a computer for receiving the frequency measurement of an oscillator from a frequency monitor and calculating the frequency error associated with the oscillator to determine the frequency error produced by the mixer associated with the downconverter or the upconverter. Furthermore, the invention claimed in claims 12 and 16 uses the computer and the oscillator mixer errors to calculate an NCO setting, which may be used to produce a desired frequency setting for the NCO. This is not disclosed or suggested in the prior art and is therefore allowable.

Applicants respectfully request that the Examiner indicate that claims 12 and 16 are allowable over the prior art. Applicants also respectfully submit that dependent claims 13-15 and


17-21 depend from independent claims 12 and 16, respectively and are allowable for at least these reasons. Therefore, applicants respectfully request that the Examiner indicate that these claims are in condition for allowance.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael J. Bell", is written over a horizontal line.

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